

## Abstract Of The Disclosure

Human choline acetyltransferase polypeptide and DNA (RNA) encoding such polypeptide and a procedure for producing such polypeptide by recombinant techniques is disclosed. Also disclosed are methods for utilizing such polypeptide for the treatment of cognitive and neurological deficiencies or mental disturbances such as degenerative nervous system disorders, for example, Alzheimer's Disease, ALS and other cholinergic defects, and antagonists for treating Parkinson's Disease and other disorders relating to an over-expression of acetylcholine. Also disclosed are diagnostic methods for detecting a mutation in the human Choline Acetyltransferase nucleic acid sequence.